

4.12.5 ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATION SERVICES

4.12.5.1 INTRODUCTION

The electricity, natural gas and telecommunications analysis is based on information within the following documents:

- *Sierra Vista Dry Utilities Report*, 2009
- *City of Roseville General Plan Public Facilities Element*, 2004 as amended
- *PG&E Line 406 and 407 Natural Gas Pipeline Draft EIR*, July 2009(SCH#2007062091)
- *West Roseville Specific Plan*, February 2004

The documents listed above are available for review during normal business hours at:

City of Roseville Permit Center

311 Vernon Street
Roseville, CA 95678

No comments related to electricity or natural gas were received in response to the NOP.

4.12.5.2 ENVIRONMENTAL SETTING

Electricity Supply

The City purchases wholesale electrical power from both the Western Area Power Administration (WAPA), which is generated by the federal government's Central Valley Project, and from other members of the Northern California Power Agency (NCPA), a joint powers agency, and distributes it through transmission and distribution lines. In addition, approximately 40 percent of the City's power is generated at the City owned Roseville Energy Park (REP).

The REP is a 166 megawatt natural gas fired power plant that utilizes a state of the art combined cycle gas turbine technology. The REP went into service in October 2007 providing the cleanest fossil-fired energy possible from a facility of its size.

There are two potential public utility providers that could provide electricity to the project area: Pacific Gas and Electric Company (PG&E) and the City of Roseville Electric Department (Roseville

Electric). Roseville Electric provides electrical service to customers within the City limits and is anticipated to be the service provider for the project area.

In 2008, the City's annual electrical consumption was approximately 1,303,838 mega-watt hours. By the year 2025, the City's electrical consumption is expected to rise to 1,549,739 mega-watt hours. The peak demand for electricity for the City in July 2008 was approximately 336 mega-watts.

With the proposed SVSP, the City's electric consumption is expected to be 1,689,887 mega-watt hours.

Revenue sources for the City's utility system include electric rates and direct installation fees. These fees are collected as a condition of approval of development projects.

The City currently encourages energy conservation by providing information regarding rebate programs for energy efficiency investments and education programs for residents and businesses. In recent years, the City has encouraged smart building, through its BEST (Blueprint for Energy Efficiency and Solar Technology) Homes program. BEST Homes bring together integrated rooftop solar electric generation technology, high energy efficiency, water efficiency and shade trees as a standard feature in homes. Through BEST Homes, Roseville Electric is offering new home developers up to \$8,600 in rebates for each participating dwelling unit (plus \$30 per qualifying Shade Tree). The City proposes that up to 20 percent of all new home construction include high energy efficient integrated rooftop solar electric generation technology as a standard feature in homes.

The BEST Homes program allows developers to:

- Offer the next generation in housing today
- Benefit from the City's guaranteed planning and permitting process
- Gain a highly marketable program, while using the program and City of Roseville's logos
- Increased visibility through the Roseville Electric website
- Positive environmental impact

The City of Roseville has numerous other programs that encourage energy conservation.

Transmission

There are currently 12-kilovolt (kV) PG&E overhead lines along Fiddymont Road between Pleasant Grove Boulevard and Baseline Road adjacent to the Project area. As part of the SVSP, these overhead lines will be removed and relocated underground as development in the SVSP takes place. A 230-kV electrical receiving station is located on the east side of Fiddymont Road approximately 375 feet south of Pleasant Grove Boulevard. The northern boundary of the substation site is adjacent to an existing 425-foot wide transmission corridor that contains two above-ground 230-kV WAPA transmission lines and two Sacramento Municipal Utility District (SMUD) 230-kV transmission lines that run east/west through the project area. In addition, Roseville Electric has a 60-kV transmission line that extends south from the proposed Westside Drive in the West Roseville Specific Plan to the transmission corridor, where it then turns east to Fiddymont Road to connect to the electrical receiving station on Fiddymont Road.

PG&E has existing overhead electric distribution circuits (12kV) running to pumps and a few of the existing farm houses on the site.

Natural Gas

A PG&E ten-inch steel high pressure natural gas distribution feeder main (DFM) was recently extended north up Fiddymont Road adjacent to the site, west on Pleasant Grove Boulevard, and then north up Westside Drive in the WRSP to serve the new REP. It operates at a maximum allowable operating pressure of 500 pounds per square inch gauge. According to PG&E, the average amount of natural gas consumed by a residential unit in the City of Roseville is approximately 150 cubic feet per day (cfd) per unit.¹

The City's development review process includes a review and comment opportunity for privately owned utility companies, including PG&E to allow for informed input for each utility company on all development proposals. The input facilitates a detailed review of all projects by service purveyors to assess the potential demands for utility services on a project-by-project basis. The ability of PG&E to provide its services concurrently with each project is evaluated during the development process. Funding for gas service is collected through company billings and developer fees, which fund service extension and infrastructure.

¹ WRSP FEIR, February 2004

4.12.5.3 REGULATORY SETTING

Federal

The Federal Energy Regulatory Commission regulates the transmission and sale of electricity in interstate commerce, licenses hydroelectric projects, and oversees related environmental matters.

In 2006, the US EPA and Department of Energy co-sponsored the National Action Plan for Energy Efficiency (the Action Plan). The Action Plan presents policy recommendations for creating a sustainable, aggressive national commitment to energy efficiency through gas and electric utilities and partner organizations. Such a commitment could save many billions of dollars on energy bills over the next 10 to 15 years, contribute to energy security and improvement the environment. Roseville Electric has adopted the principles of the Action Plan.

State

The project would need to comply with the California Building Energy Efficiency Standards. Title 24 of the California Code of Regulations was amended in October 2005 to include new energy efficiency standards in response to the state's energy crisis as well as AB 970, the California Energy and Reliability Act of 2000. The goal of these enactments is to improve the energy efficiency of residential and nonresidential buildings, minimize impacts during peak energy use periods, and reduce impacts on overall state energy needs. Implementation of the standards is expected to substantially reduce the growth in electricity and natural gas use.

PG&E's Gas Rule 15 provides policies and procedures for the extension of gas distribution mains necessary to furnish permanent services to customers. It outlines responsibilities for installation and extension allowance, as well as financial contributions by project applicants.

Local

The City of Roseville's General Plan includes goals and policies for electricity and gas supply.

Goal 1: Maintain a municipal electric utility that provides an efficient, economical, and reliable electric system.

Goal 2: Provide electric services to all existing and future Roseville development through the City's electric Utility. The provision of services by another provider may be considered

where it is determined that such service is beneficial to the City and its utility customers or the provision of City services is not feasible.

Goal 3: Maintain adequate resource reserves consistent with industry standards, sound utility planning, and applicable contracts.

Goal 4: Aggressively pursue cost-effective and environmentally safe alternative sources of energy and energy conservation measures.

Policy 1: Secure new electric resources and transmission as necessary to meet projected demand levels.

Policy 2: Provide improvements to the sub-transmission and distribution system, consistent with facility planning studies, to ensure a reliable source of electricity is maintained.

Policy 3: Develop siting and land use compatibility standards for energy facilities.

Policy 4: Extend existing resource contracts if found to be in the best interest of the City.

Policy 5: Explore the feasibility of the development of and participation in renewable energy resources.

Policy 6: Adopt a load/resources management plan, incorporating energy efficiency, conservation, load management, and reliability strategies, identifying program objectives and implementation and monitoring mechanisms.

Policy 7: Pursue effective measures to enhance reliability of interconnection of electric utility system to region-wide grid.

Policy 8: Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs pertinent to the electric utility system.

Policy 10: Require new development to pay a fair share of the cost of new sub-transmission and distribution needed to serve the development and to dedicate sites and easements needed for substations, transmission, sub-transmission, and distribution.

Policy 11: Develop and implement public education programs designed to increase the public's awareness of energy issues, including conservation measures and practices

The City of Roseville also has several programs that address energy conservation. Refer to Chapter 4.5, *Climate Change*, for a full description of the City's energy conservations plans, policies and programs.

The City Council unanimously approved a \$19.4 million contract with Powerex Corporation to provide 231,000 MWh of wind energy to Roseville customers through 2012 to meet state and federal regulations. A mix of wind and biomass, the energy will serve the immediate needs of its 2,000 Green Roseville customers and boost the utility's renewable energy total from 10 to 14 percent over the next three years. Roseville Electric anticipates entering into more contracts to meet state mandates by increasing the utility's renewable energy total to 20 percent by 2010.

Roseville Electric requires air conditioners installed in new construction to exceed state energy efficiency requirements. Rebates are available to builders who construct energy efficient homes. The annual goal is 1,000 new homes per year.

Thresholds of Significance

For purposes of this EIR, a significant impact would occur if development proposed in the project would do the following:

- Generate demand for electricity or natural gas that exceeds the existing or planned supply or capacity of transmission facilities.

IMPACT 4-12.5-1	INCREASED DEMAND FOR ELECTRICITY	
Applicable Policies and Regulations	CCR Title 20 CCR Title 24 Government Code Section 25000 et seq.	
	SVSP	Urban Reserve
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

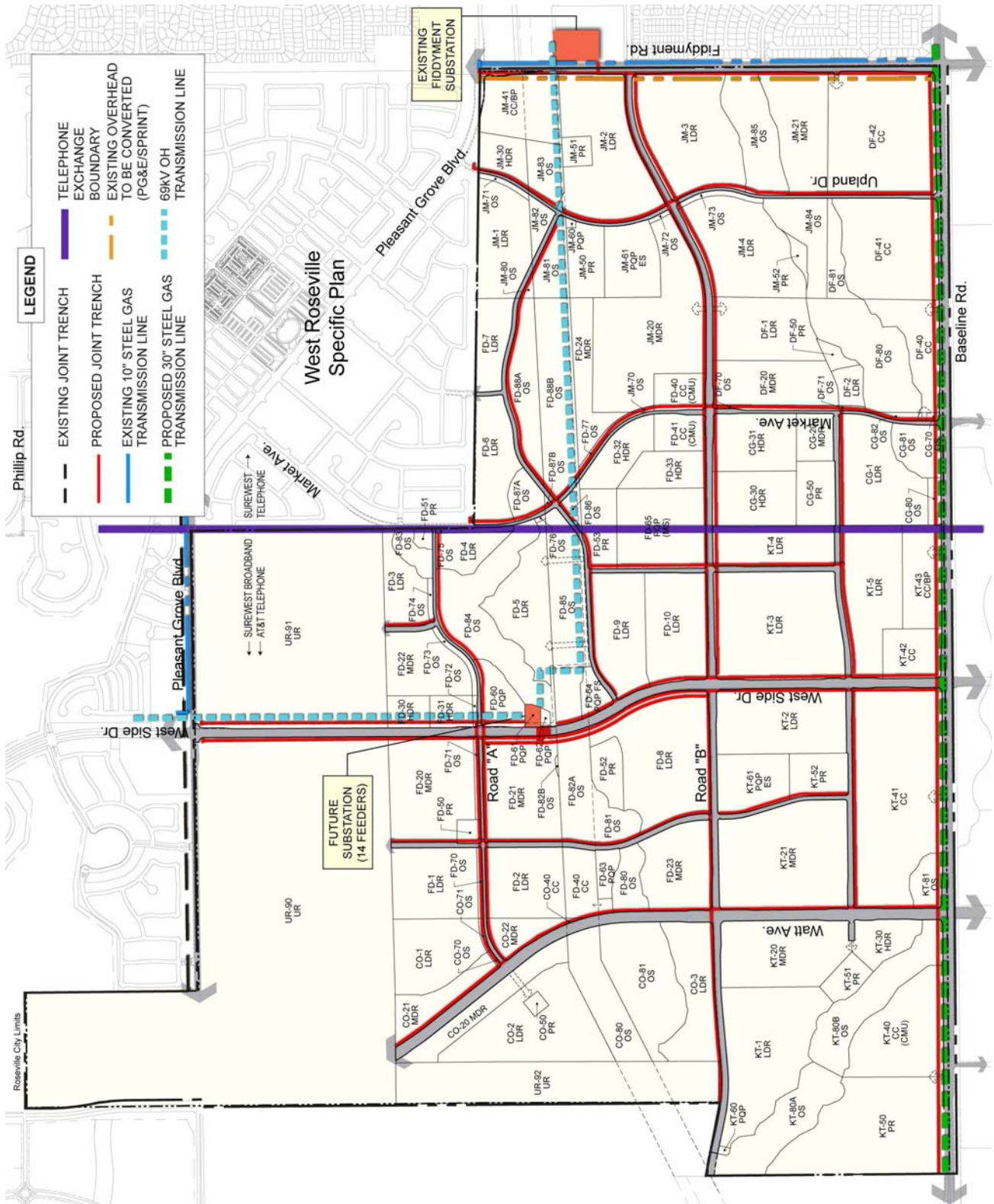
SIERRA VISTA SPECIFIC PLAN

The development and implementation of the SVSP would add land uses that would increase the demand for electrical services. As shown in Table 4.12.5-1, the increased demand for electrical service is estimated to average 52 megavolt amperes (MVA) peak demand. Roseville Electric has indicated that there are no constraints to providing a reliable energy source to serve the development proposed in the SVSP.

TABLE 4.12.5-1
ESTIMATED ELECTRIC DEMAND AT BUILDOUT

Land Use	Residential 6650 Units	Commercial 187.9 acres	Business Professional 27.3 acres	Schools	Public Facilities	Total Demand MVA
Average Demand	15.5	5.8	0.7	0.3	1.7	24.0
Peak Demand	31.4	13.4	1.9	1.4	4.1	52.1

FIGURE 4.12.5-1
60-kV OVERHEAD TRANSMISSION LINE



As shown in Figure 4.12.5-1- a 60-kV line currently exists within the plan area. However, in order to provide service to the area, a new 60-kV electric substation is required and is included in the project, as described in Chapter 2, *Project Description*. A site of a little less than one acre, located on the east side of Westside Drive, has been identified in the SVSP to accommodate the electric substation. The substation will have a provision for two 46-MVA banks (92 MVA) and 14 underground 12kV mainline circuits. No water or sewer services would be required at the substation, although the substation will require telephone service. Potential environmental effects that could occur as result of constructing this substation and the transmission system described below are addressed in Section 4.4 (Air Quality), Section 4.6 (Noise), Section 4.8 (Vegetation and Wildlife), Section 4.12 (Public Utilities), Section 4.13 (Hydrology, Water Quality and Groundwater), Section 4.9 (Cultural Resources), Section 4.14 (Aesthetics and Visual Resources), and Chapter 5, (CEQA Considerations).

The 60-kV overhead transmission line that extends south into the SVSP area, along the east side of Westside Drive will loop in and out of the new substation, then continue south and east in its current alignment where it completes its loop with the Fiddymont substation on Fiddymont Road. Roseville Electric's neighborhood substations are typically looped with the 60 kV transmission systems. Mainline circuits (12 kV) from one substation typically interconnect with mainline circuits from neighboring substations. Therefore, the distribution systems emanating from one substation, to some degree support or back up the distribution systems from neighboring substations.

12 kV light wire circuits will be looped off the mainline circuits via pad mounted switches, and will distribute electric service within the various commercial and residential parcels in the SVSP. Transformers will be placed within the residential neighborhoods and at commercial sites, to provide service to individual users.

Street lighting will be provided along all public streets as part of the roadway frontage improvements. All electric and street light facilities will be designed and constructed to the City's standards.

While there is currently some excess capacity in the electric distribution system in the vicinity of the SVSP area, this capacity would not be enough to serve buildout of the SVSP. It will depend, in part, on the pace of construction of the WRSP and the phasing of construction of the SVSP. Hence,

it is assumed for purposes of this analysis that the substation will need to be in place by the 1,200th building permit in the SVSP.

While development of the SVSP will result in increased demand for electricity, the impact is not considered significant. It is anticipated that there will be adequate electricity to serve the project. Because the City has access to 40 percent of its supply from the REP, has an aggressive energy efficiency program, and a substation will be constructed as part of the SVSP to provide for adequate distribution, the impact is considered **less than significant**. To the extent that increased electricity usage from the SVSP indirectly results in environmental effects due to fossil fuel consumption associated with power plant operation, such effects are addressed in Chapter 4.5, *Climate Change*.

URBAN RESERVE

While development has not been proposed for the Urban Reserve area at this time, if development occurs in the future at levels similar to the proposed SVSP, it is not anticipated that an additional substation would be needed to serve the buildout of the Urban Reserve area. Therefore, this impact is considered **less than significant**.

IMPACT 4.12.5-2	INCREASED DEMAND FOR NATURAL GAS	
Applicable Policies and Regulations	PG&E Gas Rules 15 and 16	
	SVSP	Urban Reserve
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

The development of the SVSP would increase the demand for natural gas. As shown in Table 4.12.5-2, the increased demand for natural gas is estimated to be approximately 472 thousand cubic feet per hour (MCFH).

**TABLE 4.12.5-2
ESTIMATED NATURAL GAS PEAK DEMAND AT BUILDOUT**

Land Use	Residential 6650 Units	Commercial 188.6 acres	Business Professional 27.3 acres	Schools	Public Facilities	Total Demand MVA
Peak Demand (in thousands)	332.8	107.6	15.6	10.3	5.8	472.0

The vicinity of the SVSP area contains multiple opportunities for natural gas connections. A natural gas transmission main (30" steel) is planned on the north side of Baseline Road parallel and adjacent to the south side of the SVSP area. Construction of the gas line is scheduled to begin in the next year. The new line will operate at a maximum allowable operating pressure (MAOP) of 975 psig.

Service would be extended to various parcels within the SVSP area from existing plastic gas mains (pressures range up to 60 psig) on Fiddymment Road and Pleasant Grove Boulevard, which are currently fed from two gas regulator stations: one located on Blue Oaks Boulevard at Industrial Avenue, and the other on Baseline Road east of Fiddymment Road. It is possible that a third natural gas regulator station will be required to serve the SVSP. A portion of Parcel CG-80 has been identified as a possible site (20 x 80 easement required) for a future natural gas regulator station due to its proximity to the proposed 30" natural gas transmission main planned for Baseline Road.

Eight-inch, six-inch and four-inch plastic feeder mains would distribute natural gas through the SVSP area, via major roads. Distribution lines and services will extend from the mains and will be sized based on the anticipated gas loads of the various parcels. Residential neighborhoods will likely be sized with two-inch diameter plastic distribution mains and half inch services.

Potential environmental effects that could occur as result of constructing this natural gas distribution system are addressed in Section 4.4 (Air Quality), Section 4.6 (Noise), Section 4.8 (Vegetation and Wildlife), Section 4.12 (Public Utilities), Section 4.13 (Hydrology and Water Quality), Section 4.9 (Cultural and Paleontological Resources), Section 4.14 (Aesthetics and Visual Resources), and Chapter 5, (CEQA Considerations). According to PG&E there is adequate natural gas supply to serve the SVSP, and the SVSP would provide the needed distribution lines into the project. Therefore, this impact is considered **less than significant**. To the extent that increased natural gas usage contributes to climate change, such effects are addressed in Chapter 4.5, *Climate Change*.

URBAN RESERVE

Development of the Urban Reserve area is anticipated to result in a demand for natural gas. Like the rest of the SVSP, it is anticipated that adequate natural gas supply would be available, and that distribution and service lines would be extended to the parcels as part of future development. This impact is considered **less than significant**.

TELECOMMUNICATIONS

Cable Television and Telephone Services

Environmental Setting

Cable television service is provided within the City of Roseville by Comcast. Two telephone service providers are located within the plan area. East of Market Street Surewest is the service provider. West of Market Street, AT&T is the current local exchange carrier. It is expected that Surewest will compete with AT&T to expand its service area, since Surewest is the local telephone provider in Roseville. Surewest, AT&T and Comcast will each be installing fiber backbone systems in the City and proposed project; therefore, the project is assured of an advanced technological infrastructure. All three utilities offer a “triple play” of services (dial tone, video and internet access).

The cable and telephone companies are privately owned and operated. In the 1990's, 80% of households in Roseville had cable service from Jones Intercable. The basic channels, including the

City's government access channel, were a primary source of information and entertainment for Roseville residents.

With the availability of the internet and satellite television services, the number of households subscribing to cable (Comcast) or video over DSL (Surewest) has declined to 58% of all households. This percentage has remained consistent even with significant growth in the number of households in Roseville.²

Funding for cable and telephone service is collected through company billings and developer fees applied to the extension of infrastructure to new development.

CABLE REGULATORY SETTING

Federal and State

The Digital Infrastructure and Competitiveness Act or DIVCA was passed in 2006. Video providers obtain state franchises rather than local franchises for video services.

Local

The City of Roseville General Plan includes goals and policies for private utilities.

Goal 1: Work with privately owned utility companies to ensure adequate service is provided in a timely manner for Roseville customers.

Policy 1: Provide for the review and comment of development proposals by non-City-owned utilities.

Policy 2: Require the installation of communication and electric lines underground except when infeasible or impractical.

Policy 3: Require the provision of necessary utility easements in all new developments.

Policy 4: Work with non-City-owned utility providers to ensure that uses and equipment are planned and constructed in a manner consistent with adopted land use policies and design guideline, to the extent feasible.

² City of Roseville Media Division, May 5, 2009.

Impacts and Mitigation Measures

Methods of Analysis

The demand for cable television and telephone services needed to serve the increased Roseville resident population is anticipated as development of the SVSP and Urban Reserve occurs. For this analysis, each dwelling unit is anticipated to require one cable television and one telephone connection. This is a conservative estimate, as residents are increasingly choosing cell phone and satellite services over land lines. One cable television and telephone connection is also anticipated per each gross acre of nonresidential use, excluding parks and open space. While estimates of the additional new cable television and telephone services are calculated, the impact on the service providers is qualitatively discussed.

Thresholds of Significance

For purposes of this EIR, a significant impact would occur if development proposed in the project would:

- Generate a demand for cable television and telephone service that requires extension of these facilities in a manner that could adversely affect the environment.

4.12.5.4 IMPACTS

IMPACT 4.12.5-3	INCREASED DEMAND ON CABLE TELEVISION AND TELEPHONE SERVICES	
Applicable Policies and Regulations	General Plan Policies for Privately-Owned Utilities	
	SVSP	Urban Reserve
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Distribution lines to individual parcels will be extended from existing telecommunications infrastructure adjacent to the SVSP area, which will occur as development takes place. The appropriate providers will review delivery of telephone and cable television services to individual projects in the SVSP at the time they are proposed.

The development of the SVSP area will create an increased demand for cable television and telephone services. These additional services would be provided by private telecommunications companies and would be funded through developer fees and future customer billing. In addition, the telecommunications companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a **less than significant** impact.

URBAN RESERVE

The development of the Urban Reserve parcels will create an increased demand for cable television and telephone services. These additional services would be provided by private utility companies and would be funded through developer fees and future customer billing. In addition, the utility companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a **less than significant** impact.

4.12.5.5 MITIGATION MEASURES

None required.

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